REMARKS

Applicants have canceled claims 13-20 without prejudice to renewal and reserve the right to pursue these claims in subsequent divisional applications. Applicants have amended claims 2 and 7 to clarify the invention. Applicants have submitted new claims 21-23. Support for new claim 21 is found in the specification on page 2, lines 22-23. Support for new claims 22 and 23 is found on page 9, lines 22-23.

Applicants have amended the specification to correct sentence duplication and inadvertent errors. Support for the amendment of paragraph 2 on page 9 is found in EXAMPLE VIII, on page 33, lines 27-28. No new matter has been entered by these amendments to the specification and claims.

For the Examiner's convenience, Applicants have attached an automated alignment (phrap) to show the approximate location of each of the claimed fragments, SEQ ID NO:3-8, with respect to SEQ ID NO:2, the nucleic acid molecule of claim 2. Please note, this is not an exact alignment and was not done with the same software that was used to hand-edit the full length sequence filed in the original application in 1997.

CONCLUSION

In light of the above amendments and remarks, Applicants submit that the present application is in condition for allowance. Early notice to that effect is earnestly solicited. If the Examiner contemplates other action, or if a telephone conference would expedite allowance of the claims, Applicants invite the Examiner to contact Applicants' Agent of Record. Applicants believe that no fee is due with this communication. However, if the USPTO determines that a fee is due, the Commissioner is hereby authorized to charge Deposit Account No. **09-0108.**

Respectfully submitted,
INCYTE GENOMICS, INC.

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Lynn E. Murry, PhD
Reg. No. 42,918
Direct Dial Telephone: (650) 845-4159

3160 Porter Drive
Palo Alto, California 94304
Phone: (650) 855-0555
Fax: (650) 844-4166

"VERSION WITH MARKINGS TO SHOW CHANGES MADE"

IN THE SPECIFICATION

Please amend the second paragraph on page 9, beginning on line 11 as shown below:

The transcripts which encode the cancer [~~protein~~] protein were expressed in cDNA libraries associated with secretion, immune response, and cancer. The expression pattern closely resembles that for other tumor antigens which are expressed in cancers and is at least two-fold higher than that of other tissues in the category. Example VIII shows in detail how differential expression separates the indicated cancer from other cancers or disorders that may occur in or be associated with a particular tissue. For example, the percent abundance of the cDNA in transitional cell cancer of the bladder is more than two-fold higher than expression in the bladder tissue of the subject with cystitis or cytologically normal tissue from a subject with bladder [~~prostate~~] cancer. Furthermore, the transcript was never expressed in seven other normal tissues (not shown). The tissue description for the three libraries shown in the northern analysis is quite specific and supports the use of the cDNA, the protein and antibody which specifically binds the protein as diagnostics for transitional cell carcinoma of the bladder. Specific expression data is shown for each of the other cancers--lymphoma, metastatic adenocarcinoma of the colon, Wilm's tumor, renal cell carcinomas, metastatic endometrial cancer, and testis tumor-- in which the cDNA, the protein and antibody are useful as cancer diagnostics. It must also be noted that the transcript encoding the cancer marker protein was not distinctly expressed in other cancers of the brain, breast, prostate, small intestine, stomach, and uterus or in normal or diseased bone, heart, muscle, or neurons.

Please amend the second paragraph on page 17, line 13, as shown below.

Detection and quantification of a protein using either labeled amino acids or specific polyclonal or monoclonal antibodies are known in the art. Examples of such techniques include two-dimensional polyacrylamide gel electrophoresis, enzyme-linked immunosorbent assays (ELISAs), radioimmunoassays (RIAs), and fluorescence activated cell sorting (FACS). These assays and their quantitation against purified, labeled standards are well known in the art (Ausubel, supra, unit 10.1-10.6). ~~A two-site, monoclonal-based immunoassay utilizing monoclonal antibodies reactive to two non-interfering epitopes is preferred, but a competitive binding assay may be employed. (See, e.g., Coligan et al. (1997) Current Protocols in Immunology, Wiley-Interscience, New York NY, and Pound, supra.).~~

IN THE CLAIMS

Please amend claims 2 and 7 as shown below:

2. (Once Amended) An isolated cDNA comprising a nucleic acid sequence selected from:

a) SEQ ID NO:2 and the complement of SEQ ID NO:2 [thereof]; and

b) a fragment of SEQ ID NO:2 selected from SEQ ID NOs:3-8 and the complements of SEQ ID NOs:3-8 [thereof; and

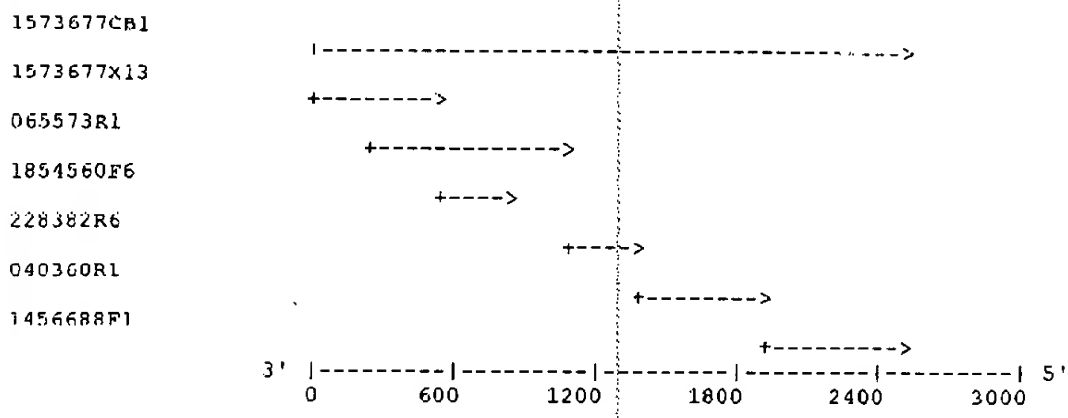
c) a variant of SEQ ID NO:2 selected from SEQ ID NOs:9-11 and the complements thereof].

7. (Once Amended) A method for using a cDNA to detect expression of a nucleic acid in a sample comprising:

a) hybridizing the composition of claim 3 to nucleic acids of the sample under conditions to form hybridization complexes; and

b) detecting hybridization complex formation, wherein complex formation indicates expression of a nucleic acid complementary to the cDNA of the composition in the sample.

Assembly: Aligned reads (Bold = start for cDNA relative to the full length CB1)




```
1573677X13    caaaaggacaagataataaagtacaaaatggttcgttacatcagaaggatacagttcatgacaatgactt
1573677CB1    caaaaggacaagataataaagtacaaaatggttcgttacatcagaaggatacagttcatgacaatgactt
                     10        20        30        40        50        60        70

1573677X13    tgagccctaccttactggacagtcaaatcagagtaacagttacccctcaatgagcgacccctacctgtcc
1573677CB1    tgagccctaccttactggacagtcaaatcagagtaacagttacccctcaatgagcgacccctacctgtcc
                     80        90       100       110       120       130       140

1573677X13    agctattacccgccgtccattggatttccttactccctcaatgaggctccgtggtctactgcaggggacc
1573677CB1    agctattacccgccgtccattggatttccttactccctcaatgaggctccgtggtctactgcaggggacc
                    150       160       170       180       190       200       210

1573677X13    ctccgattccatacctcaccacctacggacagctcagtaacggagaccatcattttatgcacgatgctgt
1573677CB1    ctccgattccatacctcaccacctacggacagctcagtaacggagaccatcattttatgcacgatgctgt
                    220       230       240       250       260       270       280

1573677X13    ttttgggcagcctgggggcctggggaacaacatctatcagcacaggttcaatttttttccctgaaaaccct
1573677CB1    ttttgggcagcctgggggcctggggaacaacatctatcagcacaggttcaatttttttccctgaaaaccct
065573R1      ..........................................................attttttccctgaaaaccct
                    290       300       310       320       330       340       350

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1573677CB1    gcgttctcagcatgggggacaagtgggtctcaaggtcagcagacccagagctcagcctctcccagcacag
065573R1      gcgttctcagcatgggggacaagtgggtctcaaggtcagcagacccagagctcagcctctcccagcacag
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1573677CB1    ccccccagctttggctcaaccgcagtatcagagccctcagcagccaccccagacccgctgggttgccccac
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1573677CB1    gcaacagaaacgcggcgtttgggcagagcggagggggctggcagcgatagcaactctcctggaaacgtcca
065573R1      gcaacagaaacgcggcgtttgggcagagcggagggggctggcagcgatagcaactctcctggaaacgtcca
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1573677X13    gcctcngcngtcaagacgtgggctctgtctcagcagcgtggcactgactggtgtctttttctggcaacggt
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065573R1      gcctaattctgcccccagcgtcgaatcccaccccgtccttgaaaaactgaaggctgctcacagctacaac
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1573677X13    ggga..........................................................................
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065573R1      ccgaaagagtttgagtggaatctgaaaagcgggcgtgtgttcatcatcaagagctactctgaggacgaca
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1854560F6   tccaccgctccattaagtactccatctggtgtagcacagagcacggcaacaagcgcctgg*acagcgcct
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1854560F6   tccgctgcatgagcagcaa*ggggcccgtct*acctgctcttcag*cgtcaa*tggg*agt*gggcattt
                   780        790        800        810        820        830        840

1573677CB1  ttgtggggtggccgagatgaagtcccccgtggactacggcaccagtgccggggtctggtctcaggacaag
065573R1    ttttgggggtnggcccnaggatgnaagnttccccngtngggacttaaggggaaaccaattgcccgggg
1854560F6   ttgtggggtggccgagatgaagtcccccgtggactacggcaccagtgccggggtctggtctcaggacaag
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                  2460       2470       2480       2490       2500       2510       2520
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